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ABSTRACT

This appendix to the technical report "Module Development and Formative Evaluation" contains two forms of the quiz covering the module "Using Tables to Solve Problems" as well as teachers' comments on the module. (MP)

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TECHNICAL REPORT III: Module Development and Formative Evaluation

APPENDIX D - Using Tables to Solve Problems
Quizzes and Data

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2. Module Quiz, Form A ..... III D-4
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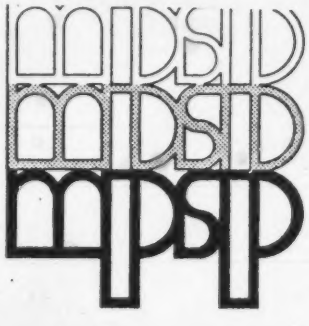
MATHEMATICAL PROBLEM SOLVING PROJECT



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Appendix D

1. Teachers' Comments on Using Tables to Solve Problems

Lesson 1

1. My students needed to review sequences (18,6)[a].
2. Needs more teacher direction on how to generate the entries. I would not have emphasized the different ways of generating the entries if we hadn't discussed it at the in-service session (29,6).
3. Kids need more instruction to see the functional relationship between entries - so do the teachers (28,5).
4. Kids liked it. It was easy but they learned something. They enjoyed the cartoon approach (1,6).
5. Problems could be more practical - why not use doughnuts and money rather than stars and circles? (9,6).

Lesson 2

1. Many students thought it was too easy - not challenging. Teacher notes were repetitive and obvious. Students lost interest quickly - too much of the same type of problem. It also became boring to teach (9,6).
2. Too much repetition, just like lesson four (6).
3. My students found this to be somewhat difficult (5).
4. Very difficult for my kids (8,5).
5. For number 4 on page 8, none of my students used "addition" to check as suggested in the teacher's notes(29,6).

Lesson 3

1. This lesson went very well. Also, some of the questions were very challenging (08, 5).
2. I did not use the teacher's notes. I had to spend extra time on this unit because my students were not grasping the relationships in the table (28,5).

3. This was more difficult than the previous lessons. It was challenging, but easy which made it a bit boring (01,6).
4. Children enjoyed this very much. Some of the students did have trouble understanding, so I spent a little longer on this lesson (05,6).
5. Same problems again. Teacher's notes are obvious. Problems are more practical, but the students complained they are too repetitive (09,6).

Lesson 4

1. Teacher's notes are repetitive (9,6).
2. Too much for my kids. It became boring. It's the same as lesson two (1,6).
3. My students are having difficulty, especially on page 22 (28,5).
4. Good problems, lots of discussion (8,5).
5. Lesson four (page 22) was very difficult and frustrating for some students (29,6).

Lesson 5

1. Excellent problems, good class discussion. These take less time than when a table has to be made (8,5).
2. I did not use the teacher's notes (28,5).
3. Easier than the previous lesson (number four) (1,6).

Lesson 6

1. I don't think this lesson is necessary. It is, however, a good introduction to the card deck. For some students, it is still difficult to get them to make a table (5,6).
2. Problem 9WR1 was confusing. Several students wanted to answer with "yes" and "no" (1,6).
3. This lesson effectively served its purpose (8,5).

Additional Teacher Comments[a]

1. The three-legged races were difficult for many students to conceptualize. An improved drawing may be helpful.
2. On page 6, the students thought the pictures (e.g., the cards with lines) were the same as the ones on the previous pages (e.g., the same number of lines), but they were all different. This should be mentioned to the teacher and/or student.
3. Number 3, page 20, was the most difficult problem in the whole module. Several teachers suggested that the table should begin with "10 to 15" rather than "20 to 30", especially for the fifth grade.
4. The three-heading tables were probably too difficult for fifth graders (two teachers).
5. There is an adequate number of problems in the deck for all ability levels.
6. The problems in this deck were easier than with the Organizing Lists module (four teachers).

[a] Each comment was made by one teacher unless otherwise stated.

Appendix D

2. Using Tables to Solve Problems Quiz - Form A

NAME _____ TEACHER _____ GRADE _____

1. Daily Attendance for Four Classes in Our School

	M	T	W	Th	F	Total
Class 1	24	26	25	26	26	127
Class 2	28	29	26	28	27	138
Class 3	24	23	25	23	23	118
Class 4	29	30	31	29	31	150
Total	105	108	107	106	107	533

(Circle your answer to these questions.)

(1) What was the total attendance for the four classes on Tuesday?

A. 105 B. 533 C. 138 D. 108

(2) On which day were the most students present?

A. M B. T C. W D. Th E. F

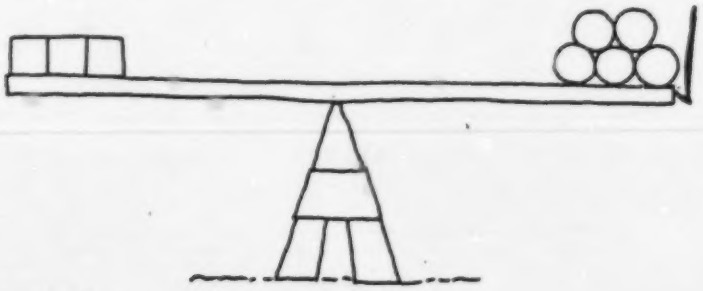
(3) How many students were in class 3 on Wednesday (W)?

A. 25 B. 26 C. 23 D. 31

(4) What was the total attendance for all four classes for the whole week?

A. 150 B. 533 C. 107 D. 138

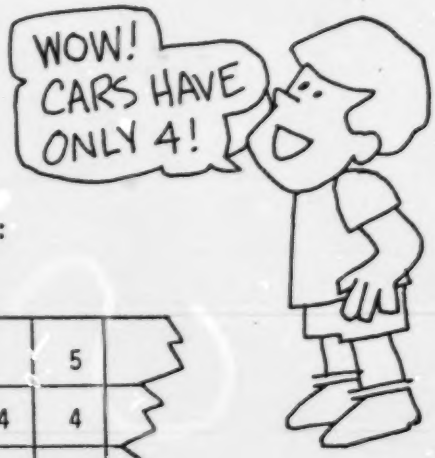
2. Ted found that he could balance the scale if he placed 3 blocks on one end and 5 balls on the other end. Using blocks on one end and balls on the other what are some other ways that Ted could balance the scale?



Complete this table:

Blocks	3				
Balls	5				

3.

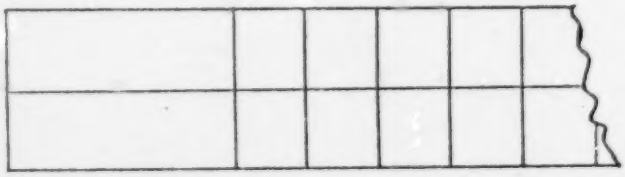


Complete the table:

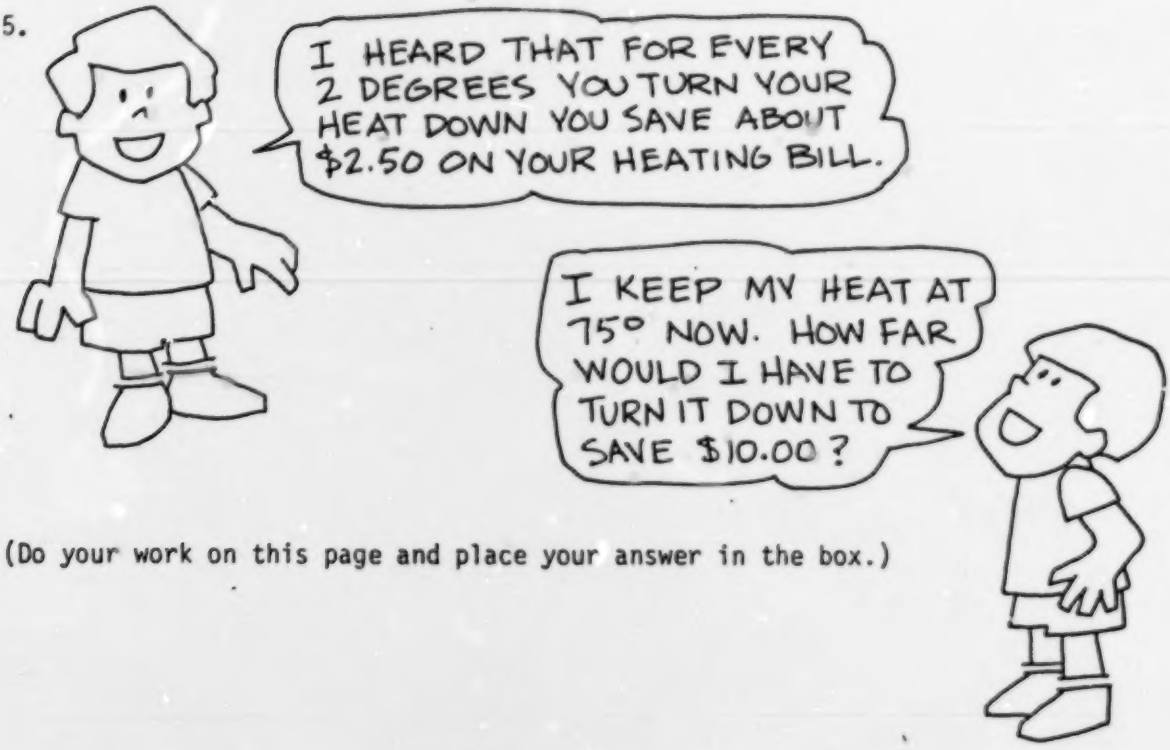
Number of trucks	1	2		5	
Number of cars	1		4	4	
Total number of tires	18	40	44		

4. How much would 21 pieces of candy cost?

Use the table and solve the problem.



5.


I HEARD THAT FOR EVERY 2 DEGREES YOU TURN YOUR HEAT DOWN YOU SAVE ABOUT $2.50 ON YOUR HEATING BILL.
I KEEP MY HEAT AT 75° NOW. HOW FAR WOULD I HAVE TO TURN IT DOWN TO SAVE $10.00?

(Do your work on this page and place your answer in the box.)

Answer:

Appendix D

3. Using Tables to Solve Problems Quiz - Form B

NAME _____ TEACHER _____ GRADE _____

1. Use this time-temperature table to answer these questions.

Hour	6 PM	8 AM	10 AM	12 N	2 PM	4 PM	6 PM	8 PM
Temperature-Fahrenheit	52°	56°	62°	74°	88°	80°	70°	56°
Temperature-Centigrade	11°	13°	17°	24°	31°	27°	21°	13°

(Circle your answer to these questions.)

(1) At what hour was it the hottest?

A. 10 AM B. 2 PM C. 4 PM D. 6 PM

(2) What was the centigrade temperature at 10 AM?

A. 11° B. 17° C. 24° D. 62°

(3) Was it warmer at 8 AM or 8 PM or was it the same?

A. 8 AM B. 8 PM C. the same

(4) List the hours when the temperature was above 20° centigrade. (Write your answers in the box.)

Answer:

2. Tim wants to buy some potato chips and candy bars. Altogether Tim wants to buy 9 items.

Complete this table by showing some other ways that Tim might buy 9 items.

Potato chips	2	4					
Candy bars	7	5					

3. To serve cake to 40 people, the army cook knows he needs 3 pounds of sugar and 7 pounds of flour.

Fill in the missing numbers in this table.

Number of men	40	120		200	
Pounds of sugar	3		12		
Pounds of flour	7	21	28		

4. I can ride my bicycle 3 blocks in 4 minutes. It took me 24 minutes to ride to my friends house. How many blocks did I ride to get there?

Use the table and solve the problem.

5. The turkey weighs 12 pounds. For each pound, my cookbook says I should cook the turkey for 30 minutes. If I want to eat at 5 P.M., what time should I put the turkey in the oven?

(Do your work on this page and write your answer in the box.)

Answer: